INVASIVE SPECIES CONTROL PROJECTS (R1 SMALL GRANTS)
FY 2012 FINAL REPORT

Project Title: Enhancing Upland Prairie on William L Finley and Baskett Slough NWR

Station: Willamette Valley NWR Complex

Contact Person: Jock Beall, Refuge Biologist

Project Description: This project focused on treatments of two selected noxious weed species; meadow knapweed in oak savannah/upland prairie habitat at W.L. Finley NWR and tall oatgrass on high quality upland prairie occupied by Fender's blue butterfly at Baskett Slough NWR. Selective herbicide applications using several techniques were used as control measures for each species. Hand application with Milestone was the preferred for meadow knapweed control measure. Tall oatgrass treatments were primarily with specialized weed wiping applications in the late spring with glyphosate. Broadcast applications (multiple) with a grass specific herbicide (Fusilade) were applied to emerging tall oatgrass in the early spring.

Invasive Species Targeted: Meadow knapweed and Tall oatgrass

Project Completion Date or Estimated Completion Date: August 31, 2012

Project Results: Annual efforts are made to contain meadow knapweed from spreading and reduce concentrations across upland prairie/oak savannah habitats on W.L. Finley NWR. Approximately 200 acres of habitat (a treated acre is defined as a meadow knapweed infestation treated at least once with herbicide) were treated over a 2 month period. Work involved pre-treatment surveys/inventory; blooming phenology monitoring; and multiple herbicide treatments over the same area (blooming period extends for at least 6 weeks and detection is <50% of non-blooming plants). When treatments started over 10 years ago, some acres were densely covered with knapweed. In 2012, the worst areas were approximately 50 plants per acre. It is not known how long the seed persists in the seedbank. Treatment areas were documented to assist with additional treatments/monitoring in succeeding years.

Concentrations of tall oatgrass that threaten native prairie (including listed plants) and habitat for the endangered Fender's blue butterfly were treated with glyphosate using a rolling weed wiper. The tall oatgrass extends enough above the native prairie plants such that the herbicide can be applied to the oatgrass w/o affecting the non-target species. Treatments at Baskett Slough covered approximately 50 acres, both in-house and by contract. Tall oatgrass is very sparse in previously treated areas, but wiping on these sites is critical in order to completely eradicate it from specific sites.

Herbicide treatments to tall oatgrass in the early spring using a grass specific herbicide (Fusilade) were not done on Baskett Butte due to unresolved issues surrounding possible effects to Fender's blue butterfly (FBB) larvae. The on-going study by Washington State University should resolve

this issue in the near future. However, 10 acres of upland prairie on W.L. Finley NWR were treated for tall oatgrass with Fusilade (not occupied by FBB).

The 10 acres of upland prairie noted above treated with Fusilade was significantly enhanced (restored) through forb seeding/outplantings, prescribed burn, and spot weed treatments. This site now supports golden paintbrush, another endangered prairie forb.

Number of Acres Treated: 260

Number of Acres Inventoried and/or Mapped: 200

Number of Acres Restored: 10

Total Grant Amount: $25,000

Breakdown of Expenditures:

Category	**Total $ Spent**	**% of Total Grant**
Equipment/Supplies	$1000	4%
Chemical	$2000	8%
Contractor Costs	$9,000	36%
Travel	N/A	---
Biologist/WG Salary	$12,000	48%
Restoration Materials	$1,000	4%
Other (Describe)	N/A	---
TOTAL	$25,000	100%